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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.        | CONFIRMATION NO.       |
|---|-------------|----------------------|----------------------------|------------------------|
| 09/738,371  | 12/15/2000  | Franck Barillaud     | AUS920000805US1            | 9807                   |
| 7590 01/02/2008<br>Frank C. Nicholas<br>CARDINAL LAW GROUP<br>1603 Orrington Avenue, Suite 2000<br>Evanston, IL 60201 |             |                      | EXAMINER<br>CHEA, PHILIP J |                        |
|   |             |                      | ART UNIT<br>2153           | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>01/02/2008    | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/738,371

Applicant(s)

BARILLAUD ET AL.

Examiner

Philip J. Chea

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This Office Action is in response to an Amendment filed October 17, 2007. Claims 1,4-12,14-20 are currently pending. Any rejection not set forth below has been overcome by the current Amendment.

#### *Claim Rejections - 35 USC § 103*

1. Claims 1, 2, 4-12, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alfieri et al. (US 5,666,486), herein referred to as Alfieri, and further in view of Liron (US 5,598,532) and further in view of Bereiter (US 5,909,217).

As per claims 1, and 15, Alfieri discloses a method for allocating a service on a network, as claimed, comprising:

collecting a set of performance data (see column 10, lines 40-46, where performance statistics implies the collection of performance data);

identifying a plurality of node clusters in response to said collection of said set of performance data (see column 10, lines 40-46, where a service is registered to particular nodes that are chosen based on performance statistics);

correlating at least one property of each of the identified node clusters with at least one performance rule to determine a compliance of the node cluster to the performance rule (see column 10, lines 54-60);

a map as a result of said correlation, said map including a first cluster of said plurality of clusters for supporting the service on the network (see Alfieri column 9, line 56 – column 10, line 5, where a map is considered tracking which nodes are in the cluster where the service has been allocated); and

allocating the service to one of the complying node clusters (see column 11, lines 7-25, where a client service is allocated to a particular node cluster).

Although the system disclosed by Alfieri shows substantial features of the claimed invention (discussed above), it fails to disclose that the performance data is representative of a set of physical characteristics of the network.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Alfieri, as evidenced by Liron.

In an analogous art, Liron discloses collecting a set of performance data representative of a set of physical characteristics of the network (see column 5, lines 19-36).

Given the teaching of Liron, a person having ordinary skill in the art would have obviously recognized the desirability and advantages of modifying Alfieri by collecting performance data representative of a set of physical characteristics of the network, such as disclosed by Liron, in order to improve traffic flow and balance traffic flow requirements between work groups (see Liron column 2, lines 12-22).

Although the system disclosed by Alfieri in view of Liron shows substantial features of the claimed invention (discussed above), it fails to disclose showing the map.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Alfieri in view of Liron, as evidenced by Bereiter.

In an analogous art, Bereiter discloses a large system status map provided to the user at three different levels of detail (see Abstract). Bereiter also showing a map of a first cluster of a plurality of clusters (see column 4, lines 35-43), where the cluster can be shown based on chosen characteristics such as, displaying a status of a software distribution to the cluster (see column 6, lines 7-12).

Given the teaching of Bereiter, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Alfieri in view of Liron by showing a map, such as disclosed by Bereiter, in order to zoom in on selected clusters in a large scale distributed computing environment. Furthermore, since Bereiter shows a selection of a cluster to show based on the percentage complete of a software distribution, it would be obvious that the system of Bereiter could be used to show a cluster that is selected for service allocation.

As per claim 4, Alfieri in view of Liron further disclose wherein the map includes at least one server within the first cluster for supporting the service on the network (see Alfieri column 10, lines 23-29, where on node (server) is fulfilling the obligations of the specified client service).

As per claim 5, Alfieri in view of Liron further disclose allocating the service to the first server (see Alfieri column 10, lines 23-25).

As per claims 6, 10, and 17, Alfieri in view of Liron further disclose wherein collecting the set of performance data representative of the set of physical characteristics of the network comprises probing the network for a round trip time (see Liron column 6, lines 42-44 and column 8, lines 3-17). In order minimize the delay time, the round trip time is implied within that calculation.

As per claims 7, 11, and 18, Alfieri in view of Liron further disclose wherein collecting the set of performance data representative of the set of physical characteristics of the network comprises probing the network for a hop count (see Liron column 6, lines 46-48).

As per claims 8, 12, and 19, Alfieri in view of Liron further disclose wherein collecting the set of performance data representative of the set of physical characteristics of the network comprises probing the network for bottleneck link speed (see Liron column 6, lines 54-57). In order to minimize the link bandwidth, the link speed is inherent in that calculation.

As per claims 9 and 16, Alfieri in view of Liron in view of Bereiter disclose a distributed computer system, as claimed, comprising:

- a plurality of interconnected nodes (see column 5, lines 23-32); and

- a server operable to allocate a service for said plurality of interconnected nodes, said server including (see Alfieri column 9, lines 56-58)

- a probe operable to provide a set of performance data as related to a set of physical characteristics of said plurality of interconnected nodes (see Liron column 5, lines 19-36),

- a module operable to identify a plurality of node clusters within a network in response to said set of performance data (see Alfieri column 10, lines 40-46, where a service is registered to particular nodes that are chosen based on performance statistics); and

- an engine operable to utilize at least one performance rule for said plurality of node clusters as related to said service to identify a first node cluster of said plurality of node clusters for supporting said service for said plurality of interconnected nodes (see Alfieri column 10, lines 54-60),

wherein the engine is further operable to provide a map (see Bereiter column 4, lines 35-43) representative of each node cluster in compliance with at least one performance rule as related to the service and to allocate the service to one of the complying node clusters (see Alfieri column 9, line 56 – column 10, line 5, where a map is considered tracking which nodes are in the cluster where the service has been allocated).

2. Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alfieri in view of Liron as applied to claims 9 and 16 above, and further in view of Johnson (U.S. 6,078,946). Although Alfieri in view of Liron discloses substantial features of the claimed invention (discussed above), he fails to directly disclose the module being a neural network. However, these features are well known in the art and would have been an obvious modification of the system disclosed by Alfieri in view of Liron, as evidenced by Johnson.

In an analogous art, Johnson discloses a network management system, which uses a neural network module for optimizing resources (column 5, lines 41-46).

Given the teaching of Johnson, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Alfieri in view of Liron by employing a neural network module, such as disclosed by Johnson, in order to gain the best results available for a set of input data (column 3, lines 19-23).

#### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1,4-12,14-20 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

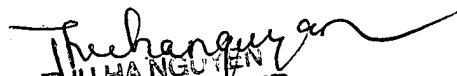
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Chea whose telephone number is 571-272-3951. The examiner can normally be reached on M-F 6:30-4:00 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Philip J Chea  
Examiner  
Art Unit 2153

PJC 12/26/07

  
THU HA NGUYEN  
PRIMARY EXAMINER